



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



April 13, 2021

**Federally-Enforceable District-Origin Operating Permit
(FEDOOP)
Statement of Basis**

Source: Citgo Petroleum
Corporation - Louisville
Terminal
4724 Campground Road
Louisville, KY 40216

Owner: Citgo Petroleum Corporation

1293 Eldridge Parkway
Houston, TX 77077

Application Documents:	See Table I-8	Administratively Complete:	Nov. 03, 2020
Draft Permit:	March 11, 2021		
Permitting Engineer:	Shannon Hosey	Permit Number:	O-0225-21-F
Plant ID: 0225	SIC: 5171	NAICS:	42271

Introduction:

This permit will be issued pursuant to District Regulation 2.17- Federally Enforceable District Origin Operating Permits. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

This permit action renews the company's operating permit.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}). Jefferson County is classified as a nonattainment area for ozone (O₃).

Permit Application Type:

<input type="checkbox"/> Initial issuance	Permit Revision	<input checked="" type="checkbox"/> Permit renewal
	<input type="checkbox"/> Administrative	
	<input type="checkbox"/> Minor	
	<input type="checkbox"/> Significant	

Compliance Summary:

<input checked="" type="checkbox"/> Compliance certification signed	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Source is out of compliance	<input checked="" type="checkbox"/> Source is operating in compliance

I Source Information**1. Product Description:**

Citgo Petroleum Corporation receives and dispenses, in bulk lots, various grades of gasoline, diesel fuel and chloroform.

2. Process Description:

Shipments are transported to the terminal via truck or pipeline. Fuels received by each system are routed to the desired storage tank(s) through a fixed arrangement of pipes and valves. Fuels are withdrawn from the various tanks as desired and routed either to a loading rack, or transfer pipeline. The company has a long term contract for the chloroform unloading from barges.

3. Site Determination:

There are no other facilities that are contiguous or adjacent to this facility.

4. Emission Unit Summary:

Emission Unit	Equipment Description
U1	Chloroform Storage Tanks
U2	Gasoline and Distillate Storage Tanks
U3	Truck Loading Rack with Control Unit (VCU)

5. Fugitive Sources:

There are fugitive VOC and HAP emissions from the transfer and handling of petroleum products.

6. Permit Revisions:

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
72-97-F	03/16/1997	04/22/1997	Initial	Initial Permit Issuance
72-97-F (R1)	03/05/2000	04/04/2000	Admin	Incorporate revisions to General Conditions #4, #11, #12, and #13; New General Conditions #13 and #14
72-97-F (R2)	5/12/2002	06/19/2002	Renewal	Permit Renewal
O-0225-15-F	12/04/2015	02/01/2016	Renewal	Permit Renewal, incorporate construction permits 117-06-C,

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
				400-05-C, 248-02-C, 56-04-C and 82-05-C
O-0225-21-F	03/11/2021	04/13/2021	Renewal	Permit Renewal

7. Construction Permit History:

Permit No.	Effective Date	Description
117-06-C	04/30/2007	One (1) 8000 gallon vertical fixed roof tank for storage of diesel fuel additive Infineum R680
400-05-C	12/31/2006	One (1) 1000 gallon storage tank for gasoline additives
248-02-C	09/30/2003	Two (2) bulk storage tanks for storage of gasoline additive
56-04-C	4/30/2004	One (1) 557 gallon storage tank
82-05-C	3/31/2006	One (1) 1050 gallon storage tank designated as Tank #7
117-06-C	04/30/2007	One (1) 8000 gallon vertical fixed roof tank for storage of diesel fuel additive Infineum R680

8. Application and Related Documents

Document Number	Date	Description
175757	10/22/2020	FEDOOP Renewal Application

9. Emission Summary

Pollutant	Uncontrolled Potential Emissions (tpy)	Pollutant that triggered Major Source Status (based on PTE)
CO	-	No
NO _x	-	No
SO ₂	-	No
PM ₁₀	-	No

Pollutant	Uncontrolled Potential Emissions (tpy)	Pollutant that triggered Major Source Status (based on PTE)
VOC	1193.49	Yes
Total HAPs	91.19	Yes
Single HAP > 1 tpy		
2,2,4-Trimethylpentane ¹	16.77	Yes
Xylene	22.53	Yes
Toluene	25.86	Yes
Benzene	9.86	No
Hexane	7.09	No
Ethylbenzene	4.50	No
Chloroform	3.50	No
Cumene	1.53	No

10. Applicable Requirements

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> 40 CFR 60 | <input checked="" type="checkbox"/> SIP | <input checked="" type="checkbox"/> 40 CFR 63 |
| <input type="checkbox"/> 40 CFR 61 | <input checked="" type="checkbox"/> District Origin | <input type="checkbox"/> Other |

11. Referenced Federal Regulations:

40 CFR Part 60, subpart Kb – Standards of Performance for VOC Storage Vessels

40 CFR 60, subpart XX – Standards of Performance for Bulk Gasoline Terminals

40 CFR 63, subpart BBBBBB – National Emission Standards for Hazardous Air Pollutants for Source Category: Bulk Gasoline Terminals (Area Sources)

12. Non-Applicable Regulations:

The company has demonstrated that its potential to emit does not exceed the MACT thresholds, therefore at this time it does not have to comply with the requirements of 40 CFR 63 Subpart R – National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations).

II Regulatory Analysis

¹ This is also known as Iso Octane.

1. Stratospheric Ozone Protection Requirements:

Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. TransMontaigne does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

2. Basis of Regulation Applicability

a. Applicable Regulations

Regulation	Title	Basis
1.05	Compliance with Emission Standards and Maintenance Requirements	Establishes monitoring and record keeping requirements in a manner consistent with good air pollution control practice for minimizing emissions.
5.15	Chemical Accident Prevention Provisions	Implements the provisions of 40 CFR Part 68 as required by the Act, §112(r)
6.13	Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds	Applies to each storage tank in being or commenced construction, modification, or reconstruction on or before April 19, 1972, <i>and</i> that has a storage capacity greater than 250 gallons <i>and</i> true vapor pressure of the VOCs as stored equal to or greater than 10.4 kPa (1.5 psia).
6.21	Standard of Performance for Existing Gasoline Loading Facilities At Bulk Terminals	Applies to bulk gasoline terminal for loading gasoline into tank trucks, trailers, railroad tank cars, or other mobile, non-marine vessels on or before June 13, 1979.
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	Applies to each storage tank that commences construction, modification, or reconstruction after April 19, 1972, <i>and</i> has a storage capacity greater than 250 gallons <i>and</i> true vapor pressure of the VOCs as stored equal to or greater than 10.4 kPa (1.5 psia).
40 CFR Part 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for	Applies to each storage tank with a capacity greater than or equal to 75 m ³ storing volatile organic liquids for which construction, reconstruction, or modification commences after July 23, 1984

Regulation	Title	Basis
	Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	
40 CFR 60 Subpart XX	Standards of Performance for Bulk Gasoline Terminals	Applies to all the loading racks at a bulk gasoline terminal which deliver liquid product into gasoline tank truck. commencing construction or modification after December 17, 1980
40 CFR Part 63 Subpart BBBB	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities	Establishes requirements to demonstrate compliance with the emission limitations and management practices for applicable gasoline storage tanks.

b. Plantwide

- i. Citgo is potentially major for VOC, total HAP, and single HAPs xylene, toluene, and 2,2,4-Trimethylpentane. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.
- ii. The source is subject to a plant-wide VOC limit of less than 95 tons during any consecutive 12-month period. The Company requested the 95 ton per 12 consecutive month limit in the application received on 1/18/2007.
- iii. The source is subject to a plant-wide combined HAP limit of less than 25 tons during any consecutive 12-month period and individual HAP limit of less than 10 tons during any consecutive 12-month period.
- iv. 40 CFR Part 63 Subpart BBBB establishes national emission limitations, management practices, and requirements to demonstrate compliance for hazardous air pollutants (HAP) emitted from gasoline distribution bulk terminals. Subpart BBBB is applicable to gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tanks, and equipment components in gasoline service. Under 40 CFR 63.11087(f) of Subpart BBBB, the storage tanks that are subject to and comply with 40 CFR part

60, Subpart Kb will be deemed in compliance with the requirements of 40 CFR 63, Subpart BBBBBB. An initial notification was received by the District on April 17, 2008.

- v. District Regulation 1.05 requires the owner or operator to maintain and operate the affected facility in a manner consistent with good air pollution control practice for minimizing emissions. The owner or operator shall monitor and maintain records from the 1.05 compliance plan, which outlines various inspections and preventative maintenance procedures.
- vi. Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.
- vii. Citgo submitted a TAC Environmental Acceptability Demonstration to the District on August 18, 2015 and October 27, 2015. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. The District reviewed the EA Demonstrations submitted by the source. The following table demonstrates that the plantwide risk values presented in the source's EA Demonstration comply with the STAR EA goals required in Regulation 5.21.

The company demonstrated that emissions from Benzene were environmentally acceptable through modeling using controlled potential emissions and limiting gasoline throughput to 152,000,000 gal/yr as reflected in U3.

The company demonstrated that emissions from Chloroform were environmentally acceptable through modeling using controlled potential emissions as reflected in U1.

Emission Unit	TAC	Maximum Ambient Concentration (µg/m3)	BACc (µg/m3)	Individual Process Risk, R _c	Individual Process EAG _c
U3, Truck Loading	Benzene	0.44223	0.45	0.98	1.0
U1, EP E8	Chloroform	0.01285	0.043	0.30	1.0
U1, EP E9	Chloroform	0.01182	0.043	0.27	1.0
U1, EP E10	Chloroform	0.01490	0.043	0.35	1.0
Plantwide	-	-	-	Plantwide R _c 1.90	Total EAG _c 7.5

Emission Unit	TAC	Maximum Ambient Concentration (µg/m3)	BACc (µg/m3)	Individual Process Risk, R _{NC}	Individual Process EAG _{NC}
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U3, Truck Loading	Benzene	0.44223	30	0.0147	1.0
U1, EP E8	Chloroform	0.01285	300	0.00004	1.0
U1, EP E9	Chloroform	0.01182	300	0.00004	1.0
U1, EP E10	Chloroform	0.01490	300	0.00005	1.0
Plantwide	-	-	-	Plantwide R_{NC} 0.015	Total EAG_{NC} 1.0

- viii. Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.
- ix. Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit regular reports to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.1. The compliance reports are due within 60 days of the end of the reporting period:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

c. **Emission Unit U1 – Chloroform Tanks**

EP	Description	Applicable Regulations
E1	A 10,000 Barrel (424,074 gallons) Bottom Fill Internal Floating Roof Chloroform Storage Tank #9	STAR, 6.13 ²
E2	A 10,000 Barrel (428,274 gallons) Chloroform Storage Tank #10 with Internal Floating Roof and Fixed Roof Cover of Welded Steel Construction by Chicago Bridge & Iron	STAR, 7.12 ³
E3	A 10,000 Barrel (428,736 gallons) Internal Floating Roof Chloroform Storage Tank #11	STAR, 7.12, 40 CFR 60 Subpart Kb

² 40 CFR 60 Subpart Kb does not apply to this equipment since these tanks were installed prior to July 23, 1984 per 40 CFR 60.110b(a).

³ 40 CFR 60 Subpart Kb does not apply to this equipment since these tanks were installed prior to July 23, 1984 per 40 CFR 60.110b(a).

i. Standards

- (1) Chemical Accident Prevention and Risk Management Discussion of Applicability Plan (Regulation 5.15 and 40 CFR Part 68, Subpart G)

Citgo shall comply with the Risk Management Plan submitted on April 09, 2019.

- (2) VOC

- (a) Regulation 6.13 and 7.12, establishes the requirements to install, maintain, and operate the applicable storage tanks.
- (b) 40 CFR 60 Subpart Kb establishes the requirements to install, maintain, and operate the applicable storage tanks.

ii. Monitoring and Record Keeping

- (1) VOC

40 CFR Part 60, Subpart Kb establishes monitoring requirements for storage vessels.

d. Emission Unit U2 – Storage Tanks

EP	Description	Applicable Regulations
E1 ⁴	Gasoline Storage Tank #1, 1,464,246 Gallons External Floating Roof	STAR, 6.13, 40 CFR 63 Subpart BBBBBB
E2 ⁴	Gasoline Storage Tank #2 1,463,784 Gallons External Floating Roof	
E3 ⁴	Gasoline Storage Tank #3 14,619,363 Gallons External Floating Roof	
E4 ⁴	Gasoline Storage Tank #5 1,464,162 Gallons External Floating Roof	
E5 ⁴	Gasoline Storage Tank #6 1,885,086 Gallons External Floating Roof	
E6 ⁴	Distillate Storage Tank #7 1,416,786 Gallons Vertical Fixed Roof	STAR, 6.13
E7 ⁴	Distillate Storage Tank #8 1,416,786 Gallons	

⁴ 40 CFR Part 60 Subpart Kb does not apply because this tank was constructed before July 23, 1984

EP	Description	Applicable Regulations
	Internal Floating Roof	
E11 ⁵	Diesel Fuel Additive Infineum R680 Tank #14, 8000 Gallons Vertical Fixed Roof	STAR, 7.12
E12 ⁵	Gasoline Additive Storage Tank #15 10,000 Gallons Vertical Fixed Roof	
E13 ⁵	Gasoline Additive Storage Tank #16 557 Gallons Vertical Fixed Roof	
E14 ⁵	Storage Tank #17, 1050 Gallons Horizontal Above Ground	
E15 ⁵	Storage Tank #18, 8000 Gallons Horizontal Above Ground	

i. Standards

(1) HAP

40 CFR 63 Subpart BBBBBB establishes operational requirements and limitations to assure ongoing compliance to operate the loading rack. Subpart BBBBBB cites conditions from 40 CFR 63 Subpart A.

(2) VOC

(a) Regulation 6.13 and 7.12, establishes the requirements to install, maintain, and operate the applicable storage tanks.

(b) 40 CFR 60 Subpart Kb establishes the requirements to install, maintain, and operate the applicable storage tanks.

ii. Monitoring and Record Keeping

(1) HAP

40 CFR 63 Subpart BBBBBB establishes monitoring and record keeping requirements for gasoline bulk terminals.

(2) VOC

40 CFR Part 60, Subpart Kb establishes monitoring requirements for storage vessels.

iii. Reporting

HAP

⁵ This is not subject to 40 CFR Part 60 Subpart Kb due to the size of the tank.

As required by 40 CFR 63 Subpart BBBBBB, the source shall submit regular reports to show compliance with the permit. The compliance reports are due within 30 days of the end of the reporting period.

e. Emission Unit U3 – Truck Loading Rack with Control Unit

EP	Description	Applicable Regulations
E16	Truck loading rack consisting of two bays, 225,000 gal/hr (4 arms for gasoline and 3 arms for distillate). All loading is by bottom fill	STAR, 6.21, 40 CFR Part 60 Subpart XX, 40 CFR 63 Subpart BBBBBB

i. Standards

(1) HAP

40 CFR 63 Subpart BBBBBB establishes operational requirements and limitations to assure ongoing compliance to operate the loading rack. Subpart BBBBBB cites conditions from 40 CFR 63 Subpart A.

(2) VOC

(a) Regulation 6.21 establishes operational requirements and limitations to assure ongoing compliance to operate the loading rack.

(b) 40 CFR 60 Subpart XX establishes operational requirements and limitations to assure ongoing compliance to operate the loading rack.

ii. Monitoring and Record Keeping

(1) HAP

40 CFR 63 Subpart BBBBBB establishes monitoring and record keeping requirements for gasoline bulk terminals.

(2) VOC

CFR Part 60, Subpart XX, section 505 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

iii. Reporting

(1) HAP

As required by 40 CFR 63 Subpart BBBBBB, the source shall submit regular reports to show compliance with the

permit. The compliance reports are due within 30 days of the end of the reporting period.

(2) VOC

40 CFR Part 60, Subpart XX, section 505 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

III Other Requirements

1. Temporary Sources:

The source did not request to operate any temporary facilities.

2. Short Term Activities:

The source did not report any short term activities.

3. Emissions Trading:

The source is not subject to emission trading.

4. Alternative Operating Scenarios:

The source did not request any alternative operating scenarios.

5. Compliance History since last issuance of the FEDOOP:

There are no records of any violations since the last issuance of the FEDOOP permit.

6. Calculation Methodology or Other Approved Method:

Emission Unit	Description	Emission Factor/Calculation Methodology
U1	Chloroform Storage Tanks	AP-42 Section 7.1
U2	Gasoline and Distillate Storage Tanks	AP-42 Section 7.1
U3	Loading	AP-42, Section 5.2